

8. (Currently Amended) A method for calibrating a receiver low pass filter, the method comprises:

setting filter response of the receiver low pass filter to an initial state;

filtering, by the receiver low pass filter, a first signal having a first frequency to produce a first filtered signal, ~~by~~ by:

setting a transmit power level of a transmitter section to a nominal calibration power level;

enabling a receiver section, wherein the receiver section includes the receiver low pass filter;

enabling, subsequent to enabling the receiver section, the transmitter section; and

transmitting, by the transmitter section at the nominal calibration power level, the first signal to the receiver section;

wherein the first frequency is in a known pass region of the filter;

measuring signal strength of the first filtered signal to produce a first measured signal strength,

filtering, by the receiver low pass filter, a second signal having a second frequency to produce a second filtered

signal, wherein the second frequency is at a desired corner frequency of the filter;

measuring signal strength of the second filtered signal to produce a second measured signal strength;

comparing the first measured signal strength with the second measured signal strength to determine whether the filter has attenuated the second signal by a desired attenuation value with respect to the first signal; and

when the filter has not attenuated the second signal by the desired attenuation value with respect to the first signal, adjusting filter response of the receiver low pass filter to produce an adjusted filter response.

9. (Canceled)

10. (Currently Amended) The method of claim 9 8, wherein the filtering the second signal further comprises:

transmitting, by the transmitter section at the nominal calibration power level, the second signal to the receiver section.

11. (Original) The method of claim 8, wherein the adjusting the receiver low pass filter response further comprises:

incrementally adjusting a time-constant of the receiver low pass filter corresponding to the corner frequency to produce the adjusted filter response;

filtering, in accordance with the adjusted filter response, the second signal to produce a subsequent second filtered signal;

measuring signal strength of the subsequent second filtered signal to produce a subsequent second signal strength;

comparing the first measured signal strength with the subsequent second measured signal strength to determine whether the receiver low pass filter has attenuated the second signal by the desired attenuation; and

when the receiver low pass filter has not attenuated the second signal by a desired attenuation value with respect to the first signal, repeating the incrementally adjusting, the filtering, the measuring, and the comparing until the receiver low pass filter has attenuated the second signal by the desired attenuation value.

12. (Original) The method of claim 8, wherein the measuring of the signal strength of the first and second signals further comprises at least one of:

determining in-phase component and quadrature component magnitudes of the first and second signals to produce the first and second signal strengths, respectively;

determining a square of the magnitudes of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively;

determining a power level of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively;

determining a received signal strength indication of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively.

13. (Original) The method of claim 8, wherein the adjusting the receiver low pass filter response further comprises:

determining an actual attenuation value based on the first and second signal strengths;

comparing the desired attenuation value to the actual attenuation value to determine an attenuation error; and

adjusting the filter response based on the attenuation error.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. A radio frequency integrated circuit comprises:

a transmitter section operably coupled to convert outbound baseband data into outbound radio frequency (RF) signals;  
and

a receiver section operably coupled to convert inbound radio frequency (RF) signals into inbound baseband data, wherein the receiver section includes a low pass filter that includes:

low pass filtering circuit operable to substantially pass analog low intermediate frequency (IF) signals having a frequency in a pass region and to attenuate analog low IF signals having a frequency outside the pass region; and

calibration module operably coupled to the low pass filtering circuit, wherein the calibration module:

measures signal strength of a first filtered signal to produce a first measured signal strength, wherein the low pass filtering circuit produces the first filtered signal by filtering a signal having a first frequency, wherein the first frequency is within the pass region and wherein producing the first filtered signal

includes setting a transmit power level of the transmitter section to a nominal calibration power level, enabling the receiver section, enabling, subsequent to enabling the receiver section, the transmitter section, and transmitting, by the transmitter section at the nominal calibration power level, the first signal to the receiver section;

measures signal strength of a second filtered signal to produce a second measured signal strength, wherein the low pass filtering circuit produces the second filtered signal by filtering a signal having a second frequency, wherein the second frequency is at a desired corner frequency of the filter;

compares the first measured signal strength with the second measured signal strength to determine whether the filter has attenuated the second signal by a desired attenuation value with respect to the first signal; and

when the low pass filtering circuit has not attenuated the second signal by the desired attenuation value with respect to the first signal, adjusting filter response of the low pass filtering circuit to produce an adjusted filter response.

23. (Currently Amended) The radio frequency integrated circuit of claim 2122, wherein the filtering the second signal further comprises:

transmitting, by the transmitter section at the nominal calibration power level, the second signal to the receiver section.

24. (Original) The radio frequency integrated circuit of claim 21, wherein the adjusting the low pass filter response further comprises:

incrementally adjusting a time-constant of the low pass filter corresponding to the corner frequency to produce the adjusted filter response;

filtering, in accordance with the adjusted filter response, the second signal to produce a subsequent second filtered signal;

measuring signal strength of the subsequent second filtered signal to produce a subsequent second signal strength;

comparing the first measured signal strength with the subsequent second measured signal strength to determine whether the filtered has attenuated the second signal by the desired attenuation; and

when the low pass filter has not attenuated the second signal by a desired attenuation value with respect to the first signal, repeating the incrementally adjusting, the filtering, the measuring, and the comparing until the low

pass filter has attenuated the second signal by the desired attenuation value.

25. (Original) The radio frequency integrated circuit of claim 21, wherein the measuring of the signal strength of the first and second signals further comprises at least one of:

determining in-phase component and quadrature component magnitudes of the first and second signals to produce the first and second signal strengths, respectively;

determining a square of the magnitudes of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively;

determining a power level of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively;

determining a received signal strength indication of the in-phase and quadrature components of the first and second signals to produce the first and second signal strengths, respectively.

26. (Original) The radio frequency integrated circuit of claim 21, wherein the adjusting the receiver low pass filter response further comprises:

determining an actual attenuation value based on the first and second signal strengths;